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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,675	10/02/2003	Christopher J. Stone	BCS03171	8844
43471 Motorola, Inc. Law Department 1303 East Algonquin Road 3rd Floor Schaumburg, IL 60196	7590 03/18/2008		EXAMINER SAWAGED, SARI S	
			ART UNIT 2623	PAPER NUMBER
			NOTIFICATION DATE 03/18/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing.Schaumburg@motorola.com
APT099@motorola.com

Office Action Summary

Application No.

10/677,675

Applicant(s)

STONE ET AL.

Examiner

SARI SAWAGED

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. **Claims 26-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.** The claims are aimed at a processor readable carrier which is non statutory subject matter because it does not fall under a new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof. Appropriate action is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 29-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.** Claims 29 and 30 are drawn to a different category than its independent claim. More specifically, it is unclear which category is intended (e.g. a method or a "processor readable carrier").

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1, 3, 4, 7, 8, 9, 10, 15, 16, 17, 18, 26, 28, and 29 are rejected under 35 U.S.C. 102(e) as being unpatentable over Altmann (US 7,143,328).**

Claim 1:

Altman discloses "receiving a data signal in said source device, said data signal including un-rendered closed caption data and video data" (see col. 3 lines 34-38, a set top box receives data signals which include un-rendered closed caption data from the head end);

"separating said video data from said un-rendered closed caption data" (see figure 11);

"determining closed caption processing capabilities of said display device" (see fig. 11 and col. 3 lines 58-64); and

“if said display device is configured to process un-rendered closed caption data, transmitting said un-rendered closed caption data to said display device” (see col. 3 lines 64 – col. 4 line 11).

Claim 3:

Altmann discloses wherein said determining closed caption processing capabilities of said display device comprises:

communicating with said display device via said source device (see col. 3 lines 58-63);

accessing extended display identification data (EDID) corresponding to said display device (see col.6 line 7); and

determining closed caption processing capabilities of said display device based on said EDID (see col. 6 lines 5-13).

Claim 4:

Altmann discloses “wherein said communication with said display device occurs over a digital visual interface (DVI)” (see col. 2 lines 64-66).

Claims 7 and 15:

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Altmann discloses "a source device" (see col. 3 lines 36-38);

and "a sink device communicatively coupled to said source device" (see fig. 1B fig. 4A, col. 3 lines 16-23);

"wherein said source device is configured to receive a data signal including un-rendered closed caption data and video data" (see fig. 8, fig. 11, col. 3 lines 34-35),

"separate said video data from said un-rendered closed caption data" (see fig 1B, In this figure Altmann discloses that the video data and the auxiliary data are separated in the source device (set top box). Set top boxes are well known in the art at the time to receive un-rendered closed caption data and video data in a composite signal from the head end. This implies that the set top box receives the composite signal and separates the video signal from the un-rendered closed caption signal).

"determine closed caption processing capabilities of said sink device, and if said sink device is configured to process un-rendered closed caption data, transmit said un-rendered closed caption data to said sink device" (see col. 3 line 58 to col. 4 line 11).

Claim 8 and 16:

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Altmann discloses "wherein said source device comprises a set-top box" (see col. 3 lines 36-38).

Claim 9 and 17:

Altmann discloses "wherein said sink device comprises one of a digital television, a computer monitor, or a projector" (see col. 6 line 2).

Claim 10 and 18:

Altmann discloses "wherein said source device is communicatively coupled to said sink device via a digital visual interface" (see col. 2 lines 64-66).

Claim 26:

Altmann discloses "receiving a data signal, said data signal including un-rendered closed caption data" (see fig. 11, col. 2 line 64 to col. 3 line 2, 34-36);

"separating said video data from said un-rendered closed caption data" (see fig 1B, In this figure Altmann discloses that the video data and the auxiliary data are separated in the source device (set top box). Set top boxes are well known in the art at the time to receive un-rendered closed caption data and video data in a composite signal from the head end. This implies that the set top box receives the composite signal and separates the video signal from the un-rendered closed caption signal).

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"determining closed caption processing capabilities of said sink device" (see col. 3 line 58 to col. 4 line 11).

and "if said sink device is configured to process un-rendered closed caption data, transmit said un-rendered closed caption data to said sink device" (see col. 3 line 58 to col. 4 line 11).

Claim 28:

Altmann discloses "communicating with said display device" (see col. 3 lines 58-63);

"accessing an extended display identification data (EDID) corresponding to said display device" (see col.6 line 7); and

"determining closed caption processing capabilities of said display device based on said EDID" (see col. 6 lines 5-13).

Claim 29:

Altmann discloses "wherein said communication with said display device comprises communication via a digital visual interface (DVI)" (see col. 2 lines 64-66).

Claim Rejections - 35 USC § 103

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7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 5, 11, 19, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altmann in view of Jon Iverson ("HDMI 0.9 Released", 30th June 2002, UltimateAVmag.com).**

Claims 5, 11, 19, and 30:

Altmann discloses in one embodiment that communication with the display device occur over a DVI (see col. 2 lines 64-66). Altmann is silent as to using HDMI. However, Iverson discloses using HDMI functionality be implemented for communication between source devices and display devices (see Iverson paragraph 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the invention of Altmann with the disclosure of Iverson because it would combined high definition video with multi channel audio in a single interface (see Iverson paragraph 5), eliminating the need for multiple connections to transmit video and multi-channel audio.

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9. Claims 2, 24, 25, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altmann in view of Forler et al. (hereinafter referred to as Forler) (US 5,327,176).

Claim 2:

Altmann discloses “determining closed caption processing capabilities of said display device” (see fig. 11 and col. 3 lines 58-64); and

“if said display device is configured to process un-rendered closed caption data, transmitting said un-rendered closed caption data to said display device” (see col. 3 lines 64 – col. 4 line 11).

Altmann is silent as to whether “un-rendered closed caption data is sent to said display device only upon request by said display device.”

Forler, an inventor from the same or a similar field, discloses that a display device requests closed caption data (the display renders or ignores closed caption data based on a user’s preferences) (see fig. 2). Having “un-rendered closed caption data sent to said display device only upon request by said display device” would have been obvious to one of ordinary skill in the art at the time the invention was made because a user may not want to view closed caption data even though the data may be available and the display device capable.

Claim 24:

Altman discloses a monitor descriptor block comprising:

a first bit, wherein the setting of said first bit indicates a closed caption capability of an associated monitor (see Altmann col. 6 lines 6-19);

"a third bit, wherein the setting of said third bit indicates that a source device has transmitted closed captioning data to said associated monitor" (see Altmann col. 3 line 58 to col. 4 line 11 col. 8 lines 41-51 and col. 10 lines 1-8; Altman discloses a monitor descriptor block that contains bits that describe the capability of a display device. Altmann also discloses using error detection and correction. Altman discloses that auxiliary data may have error correction bits included with them so as to detect and correct errors so as to avoid re-transmission, however, Altmann's disclosure does not exclude retransmission. Retransmission would include communications between the source and the sink and acknowledgment that the source has received the correct auxiliary data. It would have been obvious to one of ordinary skill in the art to use the monitor descriptor block disclosed by Altmann to indicate that a source device has transmitted closed captioning data to the monitor, this would be part of the error detection scheme as disclosed by Altmann).

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Altmann discloses a descriptor block for use with the processing of auxiliary data (see col. 6 lines 6-20). Altmann is silent as to whether "the setting of said second bit indicates that said associated monitor requests that un-rendered closed captioning data be transmitted to said associated monitor".

Forler, an inventor from the same or a similar field, discloses that a display device requests closed caption data (the display renders or ignores closed caption data based on a user's preferences) (see fig. 2). Combining the inventions of Altmann and Forler so that "the setting of said second bit indicates that said associated monitor requests that un-rendered closed captioning data be transmitted to said associated monitor" would have been obvious to one of ordinary skill in the art at the time the invention was made because a user may not want to view closed caption data even though the data may be available and the display device capable.

Claim 25:

Altmann discloses "the monitor descriptor block further comprising a plurality of bits, each of said bits indicating a different closed captioning format capability" (see col. 6 lines 6-20).

Claim 27:

Altmann discloses the limitations of claim 26 as discussed above, Altmann however is silent as to whether processor instructions further instruct a processor

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to only transmit said un-rendered closed caption data to said display device upon request from said display device.

Forler, an inventor from the same or a similar field, discloses that a display device requests closed caption data (the display renders or ignores closed caption data based on a user's preferences) (see fig. 2). Having "un-rendered closed caption data sent to said display device only upon request by said display device" would have been obvious to one of ordinary skill in the art at the time the invention was made because a user may not want to view closed caption data even though the data may be available and the display device capable.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Altmann in view of Carlsgaard et al. (hereinafter referred to as Carlsgaard) (US 2002/0186320).

Claim 6:

Altmann discloses rendering closed caption data at the display device but he is silent as to "rendering said closed caption data in said source device if said display device is not configured to process un-rendered closed caption data". However, Carlsgaard discloses rendering closed caption data in the source device if the display device is not configured to process un-rendered closed caption data (see fig. 3).

Rendering closed caption data in the source device if the display device is not configured to process un-rendered closed caption data is also met by traditional systems at the time the invention was made as disclosed in the "Background" in the inventors application (see paragraph 0004). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Altmann and Carlsgaard because it would have enabled users with older display devices to view closed captions.

6. Claims 12, 13, 14, 20, 21, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altmann in view of Ozawa et al. (hereinafter referred to as Ozawa) (US 7,023,858).

Claim 12:

Altmann discloses that the source device can be a set top box (see col. 3 lines 36-38). Altmann doesn't specifically state that the source device is configured to be communicatively coupled to a head end unit. However, Ozawa discloses that the source device is configured to be communicatively coupled to a head end unit (see Ozawa col. 3 lines 43-46). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Altmann and Ozawa because it would have enabled subscribers to purchase premium programming from the head-end.

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Claim 13, 20:

Altmann discloses a system/source device for selectively passing closed caption data from a source device to a display device where the source device comprises:

A central processing unit is inherent to a source device (STB),

a digital visual interface input/output (see col. 2 lines 64-66),

an I2C bus communicatively coupling said central processing unit and said digital visual interface input/output (see col. 6 lines 54-55);

Altmann is silent as to whether the source device comprises a number of data storage units, or a processor communicatively coupled to the central processing unit and to the digital visual interface input/output.

Ozawa, an inventor from the same or a similar field discloses a source device which is comprised of a number of data storage units (see Ozawa col. 4 line 7); and

a (graphics) processor communicatively coupled to the central processing unit and to the video input/output (see Ozawa fig. 2 and col. 6 line 10). It would have been obvious to one of ordinary skill in the art at the time to combine the

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inventions of Altmann and Ozawa because it would have enabled the optimization of rapid graphics/video processing as disclosed by Ozawa. It would have also allowed for the storage of media and/or auxiliary data in the source device.

Claim 14:

Altmann discloses wherein said source device is configured to determine closed caption processing capabilities of said sink device through said digital visual interface input/output (see col. 3 line 58 to col. 4 line 11).

Claim 21:

Altmann discloses "wherein said source device is configured to determine closed captioning processing capabilities of a communicatively coupled device by accessing said coupled devices extended display identification data (EDID) (see col. 6 lines 5-13).

Claim 22:

Altmann discloses "wherein said EDID is communicated through said digital visual interface input/output (see col. 2 line 64 to col. 3 line 2 and col. 6 lines 5-13)".

Claim 23:

Altmann discloses "wherein said source device comprises a set-top box" (see col. 3 lines 36-38).

Conclusion

References Cited but not Used in Office Action

Yagi et al. (US 5,506,626) discloses a closed caption circuit where the closed caption data signal is separated from the composite video signal.

McCellan et al. (US 5,619,250) discloses a set top box where there is a CPU and a second processor connected between the CPU and the Video out.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARI SAWAGED whose telephone number is (571)270-5085. The examiner can normally be reached on Mon-Thurs, 9:00AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ANDREW KOENIG can be reached on (571) 272-7296. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sari Sawaged/
Examiner, Art Unit 2623

/Andrew Y Koenig/
Supervisory Patent Examiner, Art Unit 2623